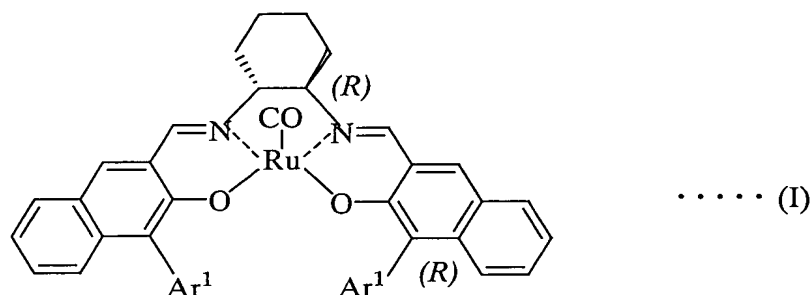
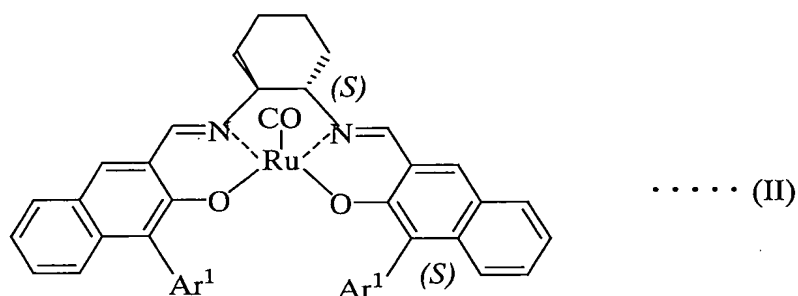


What is claimed is:

1. A method of producing an optically active sulfimide compound, which comprises using as a catalyst an optically active Ru(salen)(CO) complex represented by the following formula (I) or (II) and subjecting an alkyl aryl sulfide compound represented by the following formula (III) to an asymmetric sulfimidation with an azide compound represented by the following formula (IV):



wherein Ar<sup>1</sup> is independently an aryl group having a carbon number of 10 to 16;



wherein Ar<sup>1</sup> is independently an aryl group having a carbon number of 10 to 16;

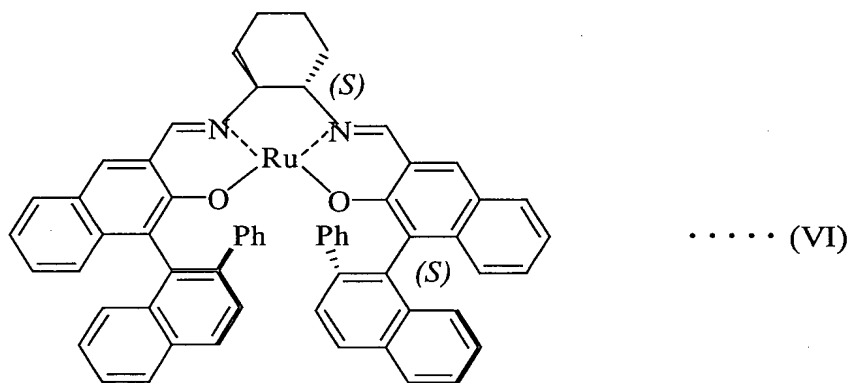
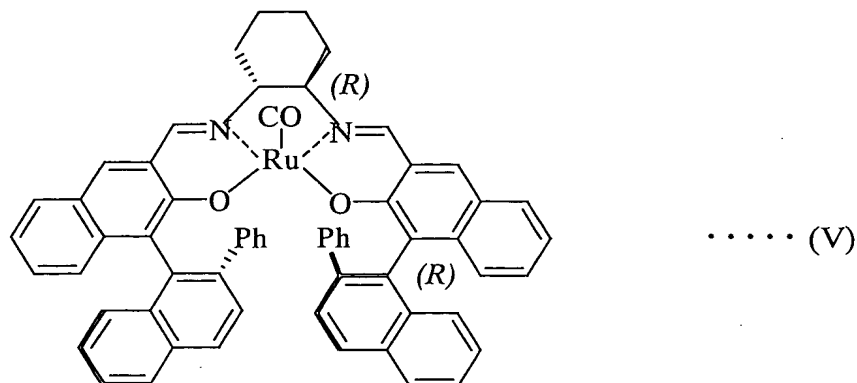


wherein R<sup>1</sup> is a straight or branched alkyl group having a carbon number of 1 to 10 and X and Y are independently a hydrogen atom, a halogen atom, a nitro group or an alkoxy group having a carbon number of 1 to 4;



wherein R<sup>2</sup> is a straight or branched alkyl group having a carbon number of 1 to 15, an aralkyl group having a carbon number of 7 to 13 or an aryl group having a carbon number of 6 to 10, provided that a hydrogen atom in the alkyl group, the aralkyl group and the aryl group may be substituted with a halogen atom.

2. A method according to claim 1, wherein the Ru(salen)(CO) complex is represented by the following formula (V) or (VI).

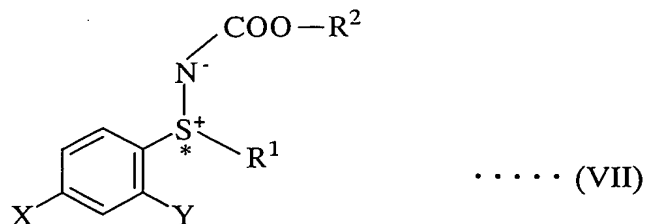


3. A method according to claim 1, wherein the alkyl aryl sulfide compound of the formula (III) is methyl phenyl sulfide, methyl p-methoxyphenyl sulfide, methyl p-chlorophenyl sulfide, ethyl phenyl sulfide, methyl o-bromophenyl sulfide or methyl o-nitrophenyl sulfide.

4. A method according to claim 1, wherein  $R^2$  in the azide compound of the formula (IV) is methyl group, n-butyl group, benzyl group, t-butyl group, phenyl group, 2,2,2-trichloroethyl group or 2,2,2-trichloro-1,1-dimethylethyl group.

5. A method according to claim 4, wherein  $R^2$  in the azide compound of the formula (IV) is 2,2,2-trichloro-1,1-dimethylethyl group.

6. A method according to claim 1, wherein the sulfimide compound is represented by the following formula (VII).



wherein each of  $R^1$ ,  $R^2$ , X and Y is the same meaning as mentioned above.

7. A method according to claim 6, wherein  $R^1$  is methyl group or ethyl group, X is a hydrogen atom, a chlorine atom or a methoxy group, Y is a hydrogen atom, a bromine atom or a nitro group, and  $R^2$  is methyl group, n-butyl group, benzyl group, t-butyl group, phenyl group, 2,2,2-trichloroethyl group or 2,2,2-trichloro-1,1-dimethylethyl group in the sulfimide compound of the formula (VII).

8. A method according to claim 6, wherein  $R^2$  in the sulfimide compound of the formula (VII) is 2,2,2-trichloro-1,1-dimethylethyl group.